

## CLAIMS

1. A magnetic sensor comprising:

a first magneto-resistive bridge constructed by a plurality of magneto-resistive elements for detecting variation of magnetic field; and

a second magneto-resistive bridge constructed by a plurality of magneto-resistive elements for detecting variation of the magnetic field, wherein the first magneto-resistive bridge and the second magneto-resistive bridge are disposed to be symmetrical to each other with respect to a direction of the magnetic field, wherein the plurality of magneto-resistive elements constituting the first magneto-resistive bridge are disposed to be symmetrical with one another with respect to the direction of the electric field, and wherein the plurality of magneto-resistive elements constituting the second magneto-resistive bridge are disposed to be symmetrical with one another with respect to the direction of the magnetic field.

2. The magnetic sensor according to claim 1, wherein the plurality of magneto-resistive elements of the first or second magneto-resistive bridge are radially disposed.

3. The magnetic sensor according to claim 1, wherein all of the plurality of magneto-resistive elements of the first and second magneto-resistive bridge are disposed to have a fixed angle with respect to the direction of the magnetic field.

4. The magnetic sensor according to claim 1, wherein each of the first and second magneto-resistive bridges comprises four radially disposed magneto-resistive elements, wherein two confronting magneto-resistive elements of the plurality of magneto-resistive elements are respectively set as a pair of magneto-resistive elements, and wherein a middle point potential of each pair of magneto-resistive elements is set as an output of each magneto-resistive bridge.

5. The magnetic sensor according to claim 4, wherein the pair of magneto-resistive elements are disposed linearly.